

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/036,001	12/24/2001	JianMin Wu	INMEPO101US	2453	
43076	43076 7590 01/19/2006			EXAMINER	
MARK D. SARALINO (GENERAL) RENNER, OTTO, BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE, NINETEENTH FLOOR			DYKE, K	DYKE, KERRI M	
			ART UNIT	PAPER NUMBER	
	D, OH 44115-2191		2667		
			DATE MAILED: 01/19/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	10/036,001	WU ET AL.			
Office Action Summary	Examiner	Art Unit			
	Kerri M. Dyke	2667			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
1) Responsive to communication(s) filed on <u>03 January 2006</u> .					
2a) ☐ This action is <b>FINAL</b> . 2b) ☐ This	This action is <b>FINAL</b> . 2b) This action is non-final.				
. —	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4) Claim(s) 23-30 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) 23-30 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) are subject to restriction and/or election requirement.					
Application Papers					
<ul> <li>9) The specification is objected to by the Examiner.</li> <li>10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).</li> <li>11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.</li> </ul>					
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4)  Interview Summary Paper No(s)/Mail Do 5)  Notice of Informal F 6)  Other:				

Art Unit: 2667

#### **DETAILED ACTION**

### Response to Amendment

- 1. Claims 1-22 have been canceled.
- 2. Claims 23-30 have been added and are currently pending.

#### Response to Arguments

3. Applicant has canceled the claims (1-22) to which the previous rejection applied, but has provided arguments as to why the newly added claims are distinguished from the art presented in the previous rejection. Examiner contends that even if not found to be inherent it is at the very least obvious that an endpoint in a VoIP system wishes to communicate with the fastest and therefore, (most likely), least loaded server due to the time sensitive nature of VoIP and a query to the load balancer would therefore be for the identification of the least loaded proxy server. Examiner agrees that neither Ma nor O'Neil disclose a reply directly from the load manager to the VoIP client. However, upon further consideration and in light of the different limitations of the newly added claims, a new ground(s) of rejection is made in view of Trethewey.

## Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 5. Claims 23-28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Trethewey (US 2003/0056002, cited previously).

Art Unit: 2667

6. In regards to claim 23, Trethewey discloses a method of balancing workload in a Voice-over-Internet Protocol (VoIP) system having at least one VoIP client, a plurality of VoIP proxy server and a load monitor, comprising (paragraph 12 discloses the use of VoIP):

- a. Receiving a query from the VoIP client with the load monitor, the query requesting an identity of the VoIP proxy sever among the plurality of VoIP proxy servers that has the lowest workload; Paragraph 23 discloses, "first, the remote computer sends, at step 50, a probe request to the load balancer." This probe request is sent in order to find the address of the server with the lowest load because the application is time sensitive, as disclosed in paragraph 2.
- b. With the load monitor, determining the identity of the VoIP proxy sever among the plurality of VoIP proxy servers that has the lowest workload by comparing workload data received from each VoIP proxy server; Paragraph 23 further discloses, "the load balancer receives the probe request at step 55, and selects and assigns a server using a conventional selection algorithm." It is well known that a conventional selection algorithm includes comparing workload data to determine the least loaded server.
- c. Transmitting the identity of the VoIP proxy server among the plurality of VoIP proxy servers that has the lowest workload from the load monitor to the VoIP client;

  Paragraph 24 discloses "the probe response may be generated by the load balancer."
- d. And the VoIP client communicating with the identified VoIP proxy server to initiate a VoIP call. Paragraph 25 discloses that the client uses the information in the probe response to initiate and maintain direct contact with the remote server. If the client

Art Unit: 2667

is running a VoIP application, which is disclosed as possible in paragraph 12, it would inherently initiate a VoIP call with the server.

- 7. In regards to claim 28, Trethewey discloses the method of claim 23, wherein if two or more of the VoIP proxy servers have the lowest workload, the load manager selects one of the VoIP proxy servers to identify to the VoIP client. Paragraph 23 discloses that conventional techniques are used to determine which server(s) has the lowest load. A single server, with the lowest load, is then reported back to the client. It is inherent therefore that the conventional algorithms must include a method to deal with the selection of a single server should more than one have the lowest load. If there was not such a method the server selection may become "stuck" and not report back a server until only one had the lowest load, or even never report back depending upon how often load measurements were taken.
- 8. Claims 24-27 and 30 recite different conventional selection algorithms, which are inherently disclosed by the use of conventional selection algorithms in paragraph 23. For example, it is well known that polling is an available method for receiving data. It is also well known to use continuous monitoring. The choice over polling or continuous monitoring would be left to the system designer after weighing the pros and cons of each option.

## Claim Rejections - 35 USC § 103

- 9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2667

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trethewey (US 2003/0056002) in view of Jindal et al. (US 6,092,178).

- 11. In regards to claim 29, Trethewey discloses the method of claim 28, but not wherein the selection is made based on VoIP proxy server proximity to a gateway through which the VoIP communicates.
- 12. Jindal discloses making the selection based upon proximity in column 3 lines 31-32.
- 13. It would have been obvious to one of ordinary skill in the art to choose the closest server, as taught by Jindal, when choosing between servers, as taught by Trethewey, because doing so results in the shortest path, i.e. the one with the fewest hops, as taught by Jindal. Choosing the path with the least number of hops is well known in the art to have multiple benefits, including the fact that the path with the fewest hops usually has the lowest latency.

#### Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Application/Control Number: 10/036,001

Art Unit: 2667

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Friday, 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kmd

CHI PHAMI PERWISORY PATENT EXAMINATION (1766)

Page 6